Forest Landscape Restoration in Pakistan: The Billion Trees Afforestation Project Experience

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## Land Use Analysis of KP (PFI, 2012)

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Land use</th>
<th>Area (million hectares)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Forest</td>
<td>1.510</td>
<td>20.30</td>
</tr>
<tr>
<td>2</td>
<td>Alpine zone</td>
<td>0.660</td>
<td>8.70</td>
</tr>
<tr>
<td>3</td>
<td>Rangelands</td>
<td>1.980</td>
<td>26.60</td>
</tr>
<tr>
<td></td>
<td>Bushes/ barren</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Agriculture</td>
<td>2.200</td>
<td>29.8</td>
</tr>
<tr>
<td>5</td>
<td>Others</td>
<td>1.100</td>
<td>14.60</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>7.450</strong></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>


Status of Forest deforestation and forest degradation

• Annual deforestation 27000 hectares
• Understocking  > 80 percent forests have density less than 30 percent
• Landslides and land slips  20% of the total area
• Accelerated soil erosion
• Biodiversity loss
• Land conversion for agriculture and other uses
• Overgrazing reducing natural regeneration
The emerging opportunity in 2013

• New provincial government of PTI put the restoration of the forests of the Khyber Pakhtunkhwa as a top priority
• A task force was established to develop a comprehensive forest restoration strategy
• The task force came up with the idea of Green Growth Initiatives aiming at increasing the forest area of the province from the current 20 percent to 22 percent in five year project besides improving the stocking density and health of the forests
• For this purpose Billion Tree Afforestation Project was launched in November 2014
Project JUSTIFICATION

Country level
• High deforestation rate at 27000 hectares per year
• Provincial Forest Resource Inventory (PFRI) 2000 report 78% of KP forests were under-stocked 74% forests were incapable of regeneration.
• Accelerated soil erosion
• Loss of Bio-diversity
• 25 to 30 years from the year 1999 when both industrial and firewood would not be available anymore from local forest resources.

• International Level
  • International Environmental treaties, obligations, agreements and protocols (Kyoto Protocol, Aichi Biodiversity Targets, COP 21, BONN Challenge)
  • BONN Challenge commitment to restore 348000 ha Forest area till June 2020.
  • The Sustainable Development Goals No. 13&15 (UN Summit-2015)
Project Objectives

1. Increase area of forests by 2% through bringing 150,000 ha additional land under forests in five years
2. Rehabilitate area of degraded forests (canopy below 50%) by 30% by inducing regeneration over 90,000 ha forests in five years
3. To Provide Job opportunities in rural areas in green sector, to reduce dependence for livelihood on natural forests.
4. Skill development, awareness about climate change impacts and sensitization of rural community for forest conservation and development
5. Establish rules for REDD+ to assign Carbon value to forests
6. Conserve KP Forests as valuable natural asset for future generations
## Breakup of One Billion Plants (in Million)

<table>
<thead>
<tr>
<th>Activity</th>
<th>Original Target</th>
<th>Revised Target</th>
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</thead>
<tbody>
<tr>
<td>Planting and Sowing</td>
<td>400</td>
<td>200</td>
</tr>
<tr>
<td>Farm Forestry</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>Enclosures</td>
<td>400</td>
<td>600</td>
</tr>
<tr>
<td>Total</td>
<td>1000</td>
<td>1000</td>
</tr>
</tbody>
</table>
## Project Finances (US $ in million)

<table>
<thead>
<tr>
<th>Phase</th>
<th>Cost</th>
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<tbody>
<tr>
<td>Phase 1 (2014-2015)</td>
<td>18 million</td>
</tr>
<tr>
<td>Phase 2 (2015-2017)</td>
<td>95 million</td>
</tr>
<tr>
<td>Phase 3 (2017-2020)</td>
<td>74 million</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>187 million</strong></td>
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</tbody>
</table>
Key Features of Implementation Strategy

• Mass awareness campaign
• Inclusive approach (public, private and community partnership)
• GIS based approach for planning and monitoring
• Variety of plant raising and forest landscape restoration interventions applied
• Community involvement especially the youth
• Robust monitoring system including third party monitoring
• Provision of job opportunities and livelihood options to the poor segment of the society
• Women involvement
Takwara DI Khan (Broken Land) Before
Tortala Lakki Marwat (After)
Aadami Plantation (Saline & waterlogged) Bannu
DI Khan Chasma Road
Farm Forestry/Plants distribution
Cheque Distribution
Gokand Chir Natural Regeneration

GOKAND - BUNER FOREST DIVISION
SURVIVAL PERCENTAGE of BLOCK PLANTATIONS-Phase-II by WWF

Figure 9 Average survival rates of plants in block plantations
پورے پاکستان کومبارک باد
آئین سے مل کر ہی بیکٹریزیون کی تاریخی کامیابی کی سیلابی بھی شاہد ہونے
پاکستان کی سب سے بڑی معاملہ ہے۔ سرما کی کاری
"بیکٹریزیون کی تاریخی کامیابی کے ساتھ،
بون چالنگ" کے تحت اپنے پنڈ میں کام کیا
IUCN Report
"348,000
پیکٹرزیزینگ کے پریمر
جنگلیات کی بحالی"
KP’s #BillionTreeTsunami leads the world on #BonnChallenge
- First sub-national entity to enter Bonn Challenge in 2014
- First entity to meet its pledge in 2017
- First entity to officially enhance its pledge in 2018

KP original pledge was for 348000 ha of forest restoration (achieved in 2017) and now an ADDITIONAL forest restoration of 252000 ha has been officially accepted by Bonn Challenge during high level event in Brazil - being announced here in a press briefing along with Ministerial reps of Brazil and Germany
Results

• More than 85 percent survival
• 150,000 hectares new area planted
• Forest area increased by 2 percent
• Job created for 50000 people
• Biodiversity recovered
• Soil erosion reduced
• Accepted by the Bonn Challenge
• The project will be replicated throughout the country (10 billion planting)
Enclosures induced 62% regeneration of indigenous species and contributed to the Biodiversity

1430 ha badland stabilized and 20735 ha saline & waterlogged area reclaimed

23% area of 74 % (without regeneration area) has been improved through enclosures